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ABSTRACT

Much of the literature in general education is focused on the design or the contents of education programs, or the "supply side," while little attention has been given to students' understandings of and attitudes toward general education, the "demand side." This paper reviews literature on the "demand side" of general education by first providing a brief synopsis of the notion of general education and recent recommendations for reform, and next summarizing research on student knowledge of and attitudes toward higher education and general education. The paper also considers processes used in higher education to affect demand side questions, including teaching, recruitment and admissions, orientation, academic and career advising, and course scheduling. Three primary strategies for data collection were used: (1) a national advisory group was identified whose members contributed to a pool of information on student perceptions of general education; (2) a network of more than 25 educational leaders was contacted for information and opinions; and (3) a literature search was undertaken. Appendixes list members of the advisory group and names of education leaders consulted, as well as providing information on the research methodology; and 77 references are included. (JDD)

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THE "DEMAND SIDE" OF GENERAL EDUCATION - A Review of the Literature: Technical Report Number 11

by

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July, 1990

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Abstract

Much of the literature in general education is focused on the design or contents of the program, or the "supply side," while little attention has been given to students' understandings of and attitudes toward general education, the "demand side." This paper reviews literature on the "demand side" of general education by first providing a brief synopsis of the notion of general education and recent recommendations for reform, and next summarizing research on student knowledge of and attitudes toward higher education and general education. Because of the paucity of "demand side" research, the paper shifts focus to processes used in higher education to affect demand side questions, including teaching, recruitment and admissions, orientation, academic and career advising, and course scheduling. The paper ends with conclusions on the importance of attending to "demand side" issues in the improvement of general education programs.

THE "DEMAND SIDE" OF GENERAL EDUCATION:
A Review of the Literature

Introduction

There has been a recent resurgence of interest in general education. Over 90 percent of American colleges and universities are reported to have undertaken reviews of their offerings, and on many campuses these reviews have led to substantial reforms (Gaff, 1989). Some institutions, for example, now boast new integrated cores of courses required of all students. Some feature "learning communities" and other innovative ways of clustering courses and involving multiple faculty in joint teaching assignments on general education topics. And even though most institutions still rely on distribution requirements, many have initiated a variety of curriculum and program changes in order to produce more coherence in their general education programs.

These multiple curricular experiments are a healthy sign, and the research underway to delineate the relative effectiveness of various curricula and programs may provide further impetus for change. But more needs to be done. Those familiar with higher education recognize that general education as described in the college catalog is not often the same as the general education delivered via the actual courses taught in a given semester. And the courses taught--the professor's intentions expressed via syllabus, readings, and assignments--are not necessarily the same as what the student learns.

An honest appraisal suggests that despite the best efforts at curriculum design and instructional reform, general education remains for too many students merely a requirement, an imposition, something to be gotten out of the way--rather than an opportunity for intellectual engagement and growth, an area of study as important to one's higher education as study in the major field in preparation for employment (Association of American Colleges, 1985). Few students understand that they need to make of their general education something coherent and meaningful, something more than the sum of a haphazard group of courses (Blackburn, Armstrong, Conrad, Didham, & McKune, 1976; Postsecondary Education Planning Commission, 1989). This problem is particularly worrisome in relation to the growing number of first-generation college students, minorities (Astin, 1982), and students who focus too strongly on narrow vocational goals in their education.

Despite questions raised about how students' understandings and attitudes might be incorporated into the optimal introduction and management of a general education program, the current flurry of reports focus on program contents--the "supply side" of general education. But what about the "demand side?" Student understandings of and attitudes toward general education have not

been featured in the recent literature. Focusing on the "supply side" of general education obviously provides only part of the picture. There is a need to complement the current emphasis in the literature on program design and content with a "demand side" examination of students' views of general education. Such information might enable educational leaders to more effectively implement general education programs in colleges and universities.

The Study Group on the Conditions of Excellence in Higher Education (1984) and Astin (1985) presented compelling reasons for looking at the talent development of students (and faculty) as a way of analyzing the quality of higher education in America. The notion of having students become more actively involved in learning, putting more physical and psychological energy into the academic experience, seems quite consistent with the emphasis in this paper on the "demand side" of general education.

The purpose of this paper, then, is to review and synthesize the literature on student understandings of and attitudes about general education. The paper begins with a brief overview of general education concepts and issues, documentation of "demand side" needs regarding general education, a description of the methodology used in conducting this literature review, a presentation of the results, and a statement of conclusions based on the review.

Overview of General Education

In discussing the "demand side" of general education, it is important to begin with a brief review of the concept of general education itself. C. Karelis (personal communication, March 12, 1989) recently noted that "general education" is not a term in common usage but a sample of 20th century U.S. educators' jargon. "General education" is a complex, highly abstract concept with sometimes confused, ambiguous meaning even within the higher education community. Sometimes general education means generalizable education--the learning of things that are applicable to many different situations. Sometimes it means wide-ranging education--learning some of this and some of that. C. Karelis (personal communication, March 12, 1989) further noted that "general education" is sometimes used as a concept or statement of purpose for undergraduate education, and other times used as a way to specify a program of courses outside the major leading to general education. This confusion contributes to problems in studying the "demand side" of general education. It is very difficult for those not yet fully socialized into the college or university (such as entering students) to attach much meaning to the concept of general education when those who deliver "it" cannot fully agree about what "it" is.

Forrest (1982) urged that general education be viewed as more than the curriculum and that desired outcomes or benefits be clearly attainable. He identified two broad objectives for general education: "(1) To increase student abilities and motivation to persist from freshman status to graduation, and (2) To increase student competence to function effectively in a number of adult roles after graduation" (p. 4). While many purposes and goals for general education have been suggested, Forrest (1982) concluded that these two anticipated results appear to be the most commonly held by the stakeholders in general education, including students, faculty, administrators, parents, taxpayers, legislators, and private funding agencies.

Boyer and Levine (1981) sought to synthesize our knowledge and beliefs about general education. In their study of the history of this movement in American colleges and universities since about 1910, they identified fifty different purposes of general education spread over three eras of reform. And while there appeared to be confusion and clutter, they observed a pattern. ". . .General education's purposes divided themselves roughly into two groups: first, those that promote social integration; and second, those that combat social disintegration--two sides of the same coin" (Boyer & Levine, 1981, p. 58).

General education is most easily defined as the breadth component of a college education, the opposite of specialized or discipline-based education (Warren, 1982). Gaff (1989) described it as "that portion of the curriculum studied by <u>all</u> students, regardless of their academic major or intended career" (p. 12). One common point of confusion has to do with "liberal education" and "general education"--are they the same? One survey of faculty and administrators found that 35 percent believed the terms were equivalent (Flexner & Berrettini, 1981). However, Boyer and Levine (1981) and others did not see them as synonymous terms. "General education refers to just one part of the undergraduate program. Liberal education includes the total experience. Ideally, when all the pieces--general education, the major, electives, and nonclassroom activity--are effectively combined, liberal education occurs" (Boyer & Levine, 1981, p. 32). Johnston (1986) observed that "liberal education is best defined by the spirit and style of its enquiry and by the results that it seeks--not by any association with a particular subject matter" (p. 16).

Perhaps the most complete, broadest statement of general education was provided by Gaff (1983). He concluded that general education:

* is rooted in the liberal tradition and involves study of the basic liberal arts and sciences;
* stresses breadth and provides students with familiarity with various branches of human understanding as well as the methodologies and languages particular to different bodies of knowledge;

* strives to foster integration, synthesis, and connectedness of knowledge rather than discrete bits of specialized information;
* encourages the understanding and appreciation of one's heritage as well as respect for other peoples and cultures;
* includes an examination of values--both those relevant to current controversial issues and those implicit in a discipline's methodology;
* prizes a common educational experience for at least part of the college years;
* requires the mastery of the linguistic, analytic, critical, and computational skills necessary for lifelong learning; and
* fosters the development of personal qualities, such as tolerance of ambiguity, empathy for persons with different values, and an expanded view of self (p. 7-8).

This section has provided a brief overview of the concept of general education as it has been discussed in recent literature. The following section shifts to a review of some of the suggestions for change.

Suggestions for Reform

There has been considerable national focus and concern on undergraduate education since the late 1970s. Gaff (1983) described how hundreds of American colleges and universities embarked on reforms of general education programs in response to what the Carnegie Foundation for the Advancement of Teaching called in 1977 a "disaster area." For example, the Association of American Colleges (1985) identified nine experiences essential to a coherent undergraduate education in America.

1. Inquiry, abstract logical thinking, critical analysis
2. Literacy: writing, reading, speaking, listening
3. Understanding numerical data
4. Historical consciousness
5. Science
6. Values
7. Art
8. International and multicultural experiences
9. Study in depth

The AAC report (1985) further noted, "In every way our proposals are an invitation to a greater respect for students, an enhanced responsibility for the quality of teaching, and a fundamental concern for the qualities of mind and character to be nurtured by a coherent education" (p. 25). Urging implementation strategies other than the course distribution scheme for enabling students to acquire these experiences, AAC noted that every students' program of education should be guided by informed faculty advice and supervision.

Boyer (1987) suggested that the "integrated core" be used as a framework for adding coherence to general education. He identified seven areas of inquiry connected to experiences common to all people.

1. Language, the crucial experience
2. Art, the esthetic experience
3. Heritage, the living past
4. Institutions, the social web
5. Nature, the ecology of the planet
6. Work, the value of vocation
7. Identity, the search for meaning

Most recently, Gaff (1989) has reviewed the state of the general education movement and urged a second wave of reform in the 1990s. He suggested that while curriculum content has been the focus during the first wave of reform, other critical elements must now be considered. These include the students, teachers, and circumstances within which education occurs--the actual implementation of general education programs within the college culture. In effect, he calls for an examination of the "demand side" of general education.

> Who are the students, what interests them, how do they learn, and how can they be actively involved in learning? What are the motivations of teachers, what constraints keep them from excelling, and how can their effectiveness be enhanced? How can the social and physical circumstances for learning be improved? And what are the most supportive environments for learning (Gaff, 1989, p. 14)?

Given this brief overview of general education concepts and suggestions for reform, the following section moves to the more pivotal questions of interest in this review regarding the "demand side" of general education. More precisely, what do entering students, and perhaps their parents, know about general education? What are their attitudes? What do they expect? The following section of the paper reviews information about these questions.

Statement of the Problem

Some thoughtful observers of higher education question the entire notion of the existence of a "demand side" of general education (A. W. Astin, personal communization, January 5, 1990; A. Forrest, personal communication, February 3, 1990; C. Adleman, personal communication, March 5, 1990; C. Karelis, personal communication, March 12, 1990). This view is based on the judgment that the term "general education" is professional jargon meaningful to educators and that beginning college students have no interest in or understanding of general education.

But how can general education programs be improved and made more effective if students remain disconnected? If beginning college students have little or no understanding of the goals or purposes of general education, how will they be able to incorporate it into their educational and life plans? The importance of these "demand side" questions for general education programs is reviewed in this section.

A clear statement of the "demand side" problem was included in the report cited earlier (Forrest, 1982), which urged institutions to formulate special efforts to communicate the nature and benefits of general education to prospective and current students.

> This special communication effort is needed because students are, we believe, the most neglected audience among the various participants in general education. Therefore, special attention to the student segment will improve an institution's overall effort to build a better case for its general education program (Forrest, 1982, p. 5).

There is very little recent objective research on student views of general education. Dressel and Mayhew (1954) provided some information on student perceptions of general education in their book for the American Council on Education. Upper class students on seven campuses strongly agreed about three principal values of general education, including its (1) general informational and cultural value; (2) more practical courses that are related to life problems; and (3) orientational value, including opening up new areas of interests, aid in choice of a major and vocation, and perspective on society and one's chosen vocation. Dressel and Mayhew (1954) concluded that student opinion can be cultivated into one of the strongest and most constructive forces for the development of general education.

A more recent article by Gaff and Davis (1981) was noteworthy in framing the research questions guiding this literature review.

> Contrary to the laments of some faculty and administration officials, the results [of the survey] demonstrate that students do value a broad general education, especially if that goal is seen in relation to other goals of specialized knowledge, a self-knowledge, and preparation for a career. Students are, however, critical of the general education courses they have taken, especially required courses and those outside their majors. Specific ideas about how this part of the curriculum can be improved are apparent: Students want to see a certain amount of free choice, active learning methods, concreteness, integration and value exploration in their studies. Whatever the subject matter, they want to acquire communication abilities, to master thinking skills, as well as to become proficient in personal and interpersonal relationships. And they [students] expect

> to participate in any revision of the undergraduate curriculum (Gaff & Davis, 1981, p. 122).

Later, Gaff (1983) wrote, "These views are hardly radical; indeed, they resemble the ideas of many faculty members and administrators who want to strengthen general education" (p. 53). He continued,

> Students' views are important not only because their satisfaction affects enrollment, but also because they are concerned with the quality of their education, not with departmental politics or territorial infighting. This survey [referring to Gaff & Davis (1981)] shows that students have important views about the purpose, form, substance, and methodology of general education, views which most institutions cannot afford to ignore" (Gaff, 1983, p. 53).

In summary, we believe that there is a "demand side" of general education, eventhough it has received little attention in the research literature. Students do have views of general education, which need to be considered in the implementation and operation of general education programs. The following section describes the methodology used in this review of the literature.

Methodology

In attempting to develop information focused on the "demand side" of general education, three primary strategies for data collection were used. First, a national advisory group was identified (see Appendix A) and used to develop an initial base of knowledge and information about the topic. Members of this advisory group met for two days prior to the 1990 Association of American Colleges meeting in San Francisco and contributed to a pool of information on student perceptions of general education. This information included names of scholars interested in the topic; names of schools, associations, foundations who have conducted prior work in the area; names of journals, books, grant reports, data bases with possible information on the topic; and an overall assessment of the current and desired state of knowledge in this area.

Second, the information obtained from the advisory group, plus ongoing information collected from the literature and conversations with leaders in general education, led to a networking strategy of letters and telephone calls soliciting data about the "demand side" of general education. Altogether, more than 25 persons were contacted for opinions, data, and other information on the topic (see Appendix B).

Third, an extensive six month literature search on general education was undertaken focusing on student variables. Appendix C, Students' Understanding of General Education: A Bibliography Research Methodology, includes the search terms used in card

catalog and computer-based data base searches, the publications examined manually, and cross searches on general education topics for the period beginning in 1979 through the present.

This three part research approach produced considerable "soft" information on the questions of interest. However, Gaff's (1983) observations about the paucity of objective information regarding student perceptions of general education remain true. Confounding this problem is that much of the evidence is not readily accessible, generally appearing in unpublished papers or presentations, items imbedded in longer questionnaires focused on other social and higher education issues, or institutional reports intended to illuminate strategies of improved college marketing or enrollment management.

Results

The findings of this literature review of the "demand side" of general education are reported in three categories: (1) faculty and student characteristics, (2) the demand side of general education, and (3) general education learner outcomes. Categories (1) and (3) review aspects of general education that might be considered "supply side" oriented, but the findings have relevance for a clearer understanding of "demand side" issues. Category (2), student perceptions of general education, examines student knowledge and attitudes of the purposes and goals of general education, and then moves to an analysis of student views of some of the strategies for implementing a general education program, e.g., teaching, recruiting and admissions, orientation, academic advising, course selection, and career planning.

Faculty and Student Characteristics

Faculty Roles and General Education

The role of the faculty in general education is of critical importance in understanding issues associated with the "demand side" of general education. Boyer (undated) recently reported the results of a 1989 national survey of faculty showing a commitment to liberal learning. The majority of respondents felt students should study a core of general education subjects and believed that "becoming proficient in creative thinking" is the most important goal of undergraduate education (Boyer, undated, p. 2).

However, Gaff (1983) noted that "Faculty involvement in hiring has led to the appointment of a large number of highly qualified specialists who lack a broad general education. General education is of relatively little concern to them, and they are not prepared to teach broad interdisciplinary courses" (p. 14). Boyer (1987) echoed this concern by noting the divided loyalties and competing career concerns within the faculty. Expected to function as scholars, conduct research, and communicate results to colleagues, improvements in undergraduate education may require faculty to make a stronger commitment to

students and effective teaching. An Association of American Colleges (1985) report observed that "Faculty control over the curriculum became lodged in departments that developed into adept protectors and advocates of their own interests, at the expense of institutional responsibility and curricular coherence" (p. 4).

With this brief review, it may be concluded that faculty have an ambivalence towards general education which may communicate mixed messages to students and others.

Student Characteristics

In beginning to review data on the "demand side" of general education, it is first important to briefly examine our knowledge of students, particularly beginning college freshmen. While there is an abundance of theoretical literature on the concept of "student development" (Astin, 1984; Parker, 1978; Perry, 1970), this review revealed little relationship between that body of knowledge and the notion of general education. Perhaps this is because much of the work in student development has been done by scholars in higher education programs or by professional student services staff, while the literature in general education is written by scholars in other areas. Our literature review revealed that many student characteristics have not been studied in relation to general education per se, including age, socioeconomic status, gender, needs, developmental stage, learning style, and intelligence.

However, educators have developed a number of typologies based on college student goals, attitudes, or behaviors. Katachadourian and Boli (1985) developed one of the newest typologies following an indepth study of students at Stanford University. They reported finding four basic orientations among students, Careerists, Intellectuals, Strivers, and Unconnecteds. These orientations were defined by the relative emphasis they placed on the aims of career preparation and liberal education. Careerists, for example, tended to be men from middle and upper-middle class backgrounds whose families placed emphasis on career success, while Intellectuals tended to be women. Minority students tended to be strivers and unlikely to be intellectuals. Their study further revealed that some measure of uncertainty typifies the freshman year, with only about 15 percent having concrete career or educational plans. Introductory courses served an important function of turning some students toward and others away from a field of study. Finally, the authors noted that while academic life was not considered central to the freshman year by many students, concerns about difficult subjects were pressing.

A case study by Katchadourian and Boli (1985) illustrated the importance of the examination of student educational goals in the analysis of the "demand side" of general education. As a result, the point of view taken in this literature review was influenced by Stark, Shaw, and Lowther (1989) who attempted to bridge the gap between student development and general education.

Focusing on student educational goals, these authors reviewed the work of various educators and policy makers in higher education along with the contributions from student development theory. They concluded that the "tendency to ignore student goals is found throughout the higher education literature" (1989, p. 8) while at the same time suggesting that student goals are the most useful psychological construct for examining and improving academic performance. They further noted that coherence in undergraduate education for students (Boyer, 1987) will depend, in part, upon developing linkages between both the educational goals of students and those of colleges, including goals that might be jointly negotiated between the two for general education. Stark et al. (1989) observed that while goals are a basic component of many investigations of entering college students, this information is then ignored in studies of college outcomes or in strategies for improving classroom instruction. Goals both affect the learning process and are modified by it--efforts should be made by institutions to measure how student goals change from entrance to graduation, or how they change as a result of particular educational programs.

In urging a focus on the study of student goals, Stark et al. (1989) suggested that factors such as the increasingly diverse mix of students in postsecondary education and the need to link entry characteristics with outcomes are essential considerations. They identified five issues related to student goals research (pp. 30-31) and reviewed literature relative to each of them.

1. The interchange of terms such as goals, needs, values, objectives, and motivations leads to semantic and conceptual confusion.

2. No consistent classification of goal types has been empirically or logically established. Within the generally recognized types, such as personal, social, and vocational goals, confusion among levels of goals, such as the continued development of pre-collegiate basic skills, collegiate-level academic goals, and higher-order intellectual goals, add to the difficulties.

3. Goal studies only rarely include goal attributes such as specificity, clarity, source, commitment, or temporality, that might help to better define goals or relate college experiences to goal attainment.

4. The linkages between concepts such as goals, motivation, efficacy, and expectancy are not well established.

5. Studies of student goals tend to focus at the college-wide level with little attention to concrete goals associated with selection of specific courses, or to the relationships among students' course goals, instructors' course goals, and course achievement.

Drawing upon the work of cognitive psychologists such as Bandura (1986), Stark et al. focused on goal attributes or dimensions as a means for better understanding student learning intentions. These dimensions include goal specificity, difficulty or challenge, clarity, source or origin, commitment or strength, time frame, and importance. Clarifying these dimensions can help improve student learning and increase the effectiveness of college programs, including general education, especially when faculty and curriculum goals are reconciled with student goals. For example, students see problem-solving as pertinent primarily in mathematics courses, while faculty see it as a goal in most courses. And students view sociology and psychology as related to developing social skills and learning about standards of behavior, respectively, while faculty likely have other course goals (J. S. Stark, personal communication, February 8, 1990).

An important theoretical concept in cognitive psychology related to this area is "metacognition," the self-observation and self-monitoring of the learning process by the learner. Because good learners are more conscious of their learning processes, helping them clarify their learning goals can make them more conscious of their learning processes and activities. Helping college students improve their metacognitive skills by developing more complex ways of thinking about the integration of their educational goals and available learning activities can enable them to develop a more coherent educational plan, one that synthesizes intellectual, personal, and vocational goals.

Stark et al. (1989) summarized their work to date as follows:

> In our trials of potential course-related item pools, we noted that students may be less likely than faculty to expect personal and social goals to be fulfilled in their classes. This fairly clear separation of the intellect from other life aspects is not desired by faculty members who believe personal enrichment is a goal of their classes. Nor is it desired by colleges which view value clarification as an important mission (p. 77).

The implications of these findings regarding student goals appear to be significant for improved understanding of the "demand side" of general education.

One instrument that has been developed in this area is the Institutional Goals Inventory (IGI) (ETS, 1989). The IGI consists of 90 goal statements to which respondents indicate both the priority value and the present level of achievement of the goal. Introduced in 1972 and used by over 400 colleges and universities, the IGI enables institutions to assess the discrepancy in goal priority and achievement among students, faculty, and administrative subgroups. Goals related to general

education are included in the instrument and separate reports are available for public or private universities, four-year colleges, liberal arts colleges, community colleges and private junior colleges.

In summary, then, student goals would appear to be a promising avenue for the study of the "demand side" of general education. Goals provide a window for learning more about student knowledge, attitudes, and values regarding higher education, including general education. The following section presents information on this topic.

The Demand Side of General Education

Student Views of Higher Education

Boyer (1987), in observing the overall condition of undergraduate education, noted the problem of the discontinuity between secondary schools and higher education. The disjointed curriculum and inadequate guidance make the student transition from high school to college haphazard and confusing. And confusion about goals has led to conflict between "careerism" and the liberal arts. Student focus on narrow vocationalism with an emphasis on skills training dominates the campus and raises fundamental questions about the mission of a college's undergraduate education. In a comprehensive study by the Carnegie Foundation (Boyer, 1987), a random sample of 1,187 students in 116 high schools indicated their very important reasons for going to college. The most frequently cited responses are shown below (parent responses are shown in parenthesis).

To have a more satisfying career, 90% (88%)
To prepare for a specific occupation in which I am interested, 89% (84%)
To get a better job, 85% (82%)
To develop talents and abilities to the fullest, 83% (87%)
To learn more about things of interest, 82% (81%)
To gain a well rounded education, 80% (89%)
To become an authority in a specialized field, 64% (42%)
To become a well-rounded, more interesting person, 50% (70%)
To become a more thoughtful, responsible citizen, 27% (28%)
To have an opportunity to clarify values and beliefs, 37% (57%)

Boyer noted that career and vocational related motives for college attendance seemed to be dominant for students, and that priorities for parents differed on several items. In several instances, parents were more strongly supportive of broad goals associated with general education.

Other surveys of entering students have not focused on the "demand side" of general education per se, but on the students'overall goals for entering college or obtaining a college education. The most widely known and frequently cited of these is the annual survey conducted by the Cooperative Institutional Research Program of The Higher Education Research Institute at the University of California, Los Angeles (popularly known as the "Astin Survey" or CIRP). This series of surveys, initiated in the Fall of 1966, provides normative data on the characteristics of students entering American colleges and universities. The 1989 freshman norms are based on the responses of 216,362 students at 403 two- and four-year colleges (Astin, Korn, & Berz, 1989). Four items from the most recent survey are relevant to the "demand side" of general education. When asked to identify Very Important Reasons in Deciding to Go to College, students identified the following top four items:

Get a better job, 75.9%
Learn more about things, 72.4%
Make more money, 72.2%
Gain general education, 62.5%

These findings appear to be quite consistent with the findings cited earlier by Gaff and Davis (1981) and Boyer (1987). And some of the items also appear to contradict one another, in that students seem to be endorsing both breadth in general education, as well as more narrow vocational goals.

Another national survey of entering students was reported by the Evaluation/Survey Service of the American College Testing Program (ACT, 1989). These normative data were based on responses from 84,388 students in 155 colleges administering the ACT Entering Student Survey between January, 1, 1986, and December 31, 1988. Students were asked to indicate major reasons for deciding to continue their education after high school. Eighteen options were provided and the nine most frequent responses are noted below.

To meet educational requirements for my chosen occupation, 80.4%
To become a better educated person, 73.1%
To qualify for a high level occupation, 70.9%
To increase my earning power, 65.5%
To develop my mind and intellectual abilities, 61.2%
To study new and different subjects, 42.2%
To develop personal maturity, 37.2%
To meet new and interesting people, 34.5%
To become a more cultured person, 29.5%

Again, these findings suggest that both broad general educational goals and narrow, specialized vocational goals are important reasons for students attending college.

Other studies of student goals for college were reported by the Educational Testing Service (Willingham, 1985) and the National Center for Higher Education Management Systems (NCHEMS, 1983). These surveys are not reported in detail here because they were not continuing in nature.

Changing the focus from national surveys to specific institutions, Newman (1987) reported the results of an open-ended survey of 100 students at a state college and a private liberal arts college. Newman posed three questions: (1) What should your higher education teach you? (2) What do you think your professors think education is for? and (3) What do you think your family thinks education should accomplish? In response to the first question, she reported that student views of non-major related education clustered in themes that may be described as cognitive, interactive, and personal growth. Cognitive development refers to critical thinking, writing, speaking and analytical skills--the ability to present ideas, promote creativity, and develop leadership capacities. Interactive is concerned with both in- and out-of-classroom experiences, including getting along with many kinds of people and learning to listen to the views of others while maintaining an integrity of self. Personal growth ranged from achievement of confidence and maturity to being well-rounded and getting oneself together. Newman also noted that responses concerning faculty were particularly strong revealing great respect as well as thinly veiled disappointment. She further noted differences between the two schools in student views of general education. Private college students appeared to have a moratorium on career choice while most of the state school responses mentioned career expectations. She concluded that the "general" in "general education" still exists in the minds of students for both in-classroom and out-of-classroom experiences.

The difference in public and private college student's goals reported by Newman (1987) suggests that there may be differences in student views of general education postsecondary institutions. Students in community colleges, research universities, small liberal arts colleges and other institutions may have different views of general education, which the aggregration of data obscures.

One of the most intriguing studies of the "demand side" of general education was reported by Moffatt (1989), an anthropologist at Rutgers University. He collected data while living among students in a freshman residence hall during 1978-1979 and 1984-1985. In analyzing the purposes, meanings, and understandings these students attached to college, Moffatt wrote:

> . . .most of them believed or hoped, one way or another, that a college education would be a civilizing experience. College should broaden their intellectual horizons, they believed; it should make them into better, more liberal, more generally knowledgeable human beings. At the same

> time, however, college should have a useful vocational outcome for them. However much it contributed to their personal enlightenment, a college education should definitely lead to good grades in a good major, and eventually to a good career in one of the professions or in business (p. 274).

And how did Rutgers' students view the curriculum? Moffatt (1989) concluded that students understood it very simply.

> There were useful subjects, subjects that presumably led to good careers, and there were useless ones. Some of the useless subjects were "interesting," the students conceded. You might study one or two of them on the side in college, or if you could not stand any of the useful majors you might actually major in something more eccentric. . . . Oddballs aside, however, your bread-and-butter choice, your main field of study, ought to be something "practical," most of the students agreed (p. 276).

Moffatt (1989) further noted that students' vocationalism and interest in specialization was consistent with prevailing faculty views. ". . .most of the faculty had even less interest in general education than their students did" (p. 282). As a result, "The average student's spontaneous liberal arts motivation amounted to something like, I'll major in this because I want to be a thus-and-such, and maybe I'll also study a little of that on the side because it's good to learn new things in college. One's major was like a job; one's other academic interest was like a hobby" (p. 283).

The preceding review of literature on student views of higher education, their understandings and attitudes, included an analyis of the goals student's endorse for college. While student views of general education and other education issues were noted in these studies, the following section examines two studies which explicitly sought to assess student views of general education.

<u>Student Views of General Education</u>

As noted previously, the study by Gaff and Davis (1981) is one of the few published reports found on this topic. For this reason, it is important to closely examine some of their findings. Their sample of colleges included ten diverse institutions participating in a grant funded Project on General Education Models designed to strengthen general education programs. A total of 1,698 students participated in the survey, including women, 53%; men, 44%; freshmen, 17%; sophomores, 33%; juniors, 13%; and seniors, 36% (note that the figures do not add up to 100% because some respondents did not answer all survey items). An important finding in this study was that while the majority of the students subscribed to the goal of general education, they also identified three other goals with even stronger support. Indeed, two of these goals, e.g., "knowledge

and skills directly related to a job or career," and "understanding and mastery of some specialized body of knowledge," are often viewed as the antithesis of general education. Two other goals, "ability to get along with people" and "intellectual tools to continue learning new areas by yourself" also received strong support from the students. Gaff and Davis concluded that "although more students strongly favored other goals, the vast majority think that general education is important; and virtually all hold to several of the broader goals of a college education" (1981, p. 114). It seems clear that students view both career preparation and general education as highly desirable outcomes of a college education.

Boyer (1987) reported the results of a national survey of high school seniors regarding general education. He observed that students viewed general education as "something to get out of the way," not as an opportunity to gain perspective. However, upon closer inspection, the picture is more mixed. "While students are pulled by demand of a career and private concerns, they also spoke to us, often with deep feeling, about the need to put their own lives in perspective. We found a longing among undergraduates for a more coherent view of knowledge and, in quiet moments, they wondered aloud whether getting a job and getting ahead would be sufficiently fulfilling" (p. 85). Boyer (1987) concluded that today's students are ambivalent about general education in that while they are concerned about careers they also feel that, at its best, education should be something more than preparation for a job.

So, to summarize study findings to this point, both large scale national surveys and college-specific ethnographic studies reveal students' approach to college encompassing an understanding of the mission of general education and liberal learning as well as a desire to prepare for future vocational and career roles. However, evidence would appear to indicate that students do not have a very clear strategy for how to integrate these two goals, which are sometimes viewed as antithetical within higher education. The next five sections of this paper report student views of major processes for the delivery of general education, including teaching, recruitment and admissions, orientation, academic advising, course selection, and career planning.

Teaching

There is also some evidence of what students expect from instructors with respect of the implementation of general education in the classroom. Returning to the study by Gaff and Davis (1981), students gave lowest ratings to classes outside their major when asked to rank activities most contributing to their intellectual and personal development. Highest ratings were given to coursework in the major, followed by socializing with fellow students, and independent study and creative activities. Other survey data supported the conclusion that "general education courses are failing their students" Gaff,

1983, p. 53). When presented with options for improving general education classes, students preferred "(1) choices among a set of alternative courses rather than a required core; (2) active methods of learning rather than lectures; (3) courses that are integrated rather than discrete; and (4) practical or concrete topics rather than theoretical or abstract content" (p. 53).

Boyer (1987) also reported on student perceptions of general education classes. Overall, he reported an ambivalence toward teaching and learning, with students' satisfaction with teaching somewhat diminished by the pressure to get good grades. So, while general education courses are most likely to have large enrollments, significant numbers of students did not object to this. Other survey responses indicated that "general education courses are rarely taught by the best faculty members in the departments in which they are given" (41% agreed) and "general education courses reflect the interests of the faculty" rather than the students (37% agreed). Moffatt (1989) reported that one of two fundamental determinants of students' views of courses was the "simple fact that the one thing college gave you back in return for your tuition payments and all your academic hard work was grades" (p. 287). "Making the grade" was the predominant consideration in academic undertakings by the students, and Moffatt wondered why anyone might think otherwise.

Recruitment and Admissions

The advent of marketing concepts in higher education, including the views of students as consumers of an education product, has led some institutions into a haphazard offering of whatever will "sell." Boyer (1987) was critical of the way some colleges have sought to implement a supermarket approach to the curriculum, offering whatever the market seems to want at the time. He suggested that colleges are confused about their mission and how to impart shared values on which the vitality of both higher education and society depends. These problems become especially apparent when colleges attempt to communicate information about their programs to prospective students and their parents.

Katchadourian and Boli (1985), while not representing a national commission or research group, suggested that the typology of four student subgroups growing out of their data analysis have important implications for admissions offices and policies. Upon review of college mission and purpose, each institution should decide what mix of Careerists, Intellectuals, Strivers, or the Unconnected should be admitted.

> Consider some of the possible consequences of such a policy. By weeding out potential Careerists among college applicants, one would interfere with the social mobility of disadvantaged groups; favoring the entry of Intellectuals will lead us back to the days of educating the children of the social elite; too many Strivers will prove too much of a good thing; excluding the Unconnected will eliminate some of

> the students with the greatest intellectual and career potential; no institution worth its salt could do without its dissenters. So the basic question for us is not who gets in but what we do with them once they are in (Katchadourian & Boli, 1985, p. 241).

Some higher education institutions have undertaken carefully controlled studies of their potential student enrollees in order to ascertain their educational goals and to then design informational programs to inform such students about how the college's program might help them meet their goals, or to design new programs directed toward the same end. Such college activities are generally called enrollment management (Hossler, 1984), and it is apparent that some of the best potential information about the "demand side" of general education is available in these local research studies. Unfortunately, because it is private research conducted for proprietary purposes, it is not available in the general literature and therefore not included in this study.

T. O'Neill (personal communication, January 8, 1990) recently noted that some colleges are able to require general education courses from high school applicants, thus placing more pressure on high schools to offer advanced placement courses which will be accepted for college credit. Such policies free the college from offering such courses. Overall, this raises a question of how general education differs at the college and secondary school levels. One report in Florida by the Postsecondary Educational Planning Commission (1989) noted that students considered the general education requirement "repetitive of subject matter they had studied in high school" (p. B-2).

One disturbing report by Johnson (1989) indicated that many students were skeptical about college recruitment information they received, perceiving the materials as marketing gimmicks rather than helpful information pieces. They reported insufficient information to make informed decisions about college, and wanting answers to basic questions about admission requirements, majors offered, financial aid and scholarships available, and the cost of attendance. In one study (Harvey & Jennings, 1987), students indicated they were misled about the training they would receive and the job opportunities available.

Finally, Krukowski (1985), writing as a marketing consultant to colleges, noted that what students and their parents want and are willing to pay for is "status." They want to attend a college with the reputation or programs they believe will lead to high paying jobs and top professional schools. A school's perceived prestige, not its academic quality, is what attracts applicants. And preoccupation with the practical results of a college education dictates not just college choice, but also the selection of what to study while in college. And parents, like their children, are willing to invest in prestige because they believe it translates into career opportunities. Krukowski

(1985) concludes that most of our four-year colleges are primarily in the business of providing a liberal arts education, which is not what students and parents want. One solution is for students to reconceptualize the value of a college education in terms of the work they do as adults with their interests as private citizens. "They must begin to recognize that intellectual and aesthetic experiences are not trivial, and that they give meaning to all work and to all the acts of living" (Krukowski, 1985, p. 28). Krukowski concludes that this can be accomplished only through direct, repeated, thoughtful interpretations and explanations by colleges as to how liberal education translates into enhanced career performance and life satisfaction.

Orientation

Orientation programs can play a significant role in preparing and teaching students about the college curriculum, especially in encouraging meaningful ways to explore the curriculum through general education. College orientation programs provide students the window through which they begin to assess the meaning or value of "going to college." Often this window becomes the standard for new students through which future experiences are judged. Therefore, orientation is a time to present to students significant role models, such as the institutions's academic leaders. They can play an important role in charting the academic course of new students, especially in general education. It is also important at this critical juncture to give new students an opportunity to assess their academic goals. Orientation leaders also have the obligation to help new students improve goal clarity, and to choose wisely among achievable academic plans. This requires a conscious effort to not only help students set goals but also to create and maintain a supportive, reinforcing learning environment. Chickering (1974) stated, "When plans become clearly formulated, learning becomes organized in relation to them" (p.113). Individual student development is enhanced when a collaborative effort, coordinated by the orientation planner with faculty, academic leaders, and advisors, is made to assist students in clarifying their academic and career goals.

Many of the educators and policy groups working in the area of general education have recommended strengthening orientation programs. Many have concluded that a semester long program to inform entering students about the purposes and goals of the college experience is essential. They have observed that existing orientation activities focus on the social and personal aspects of college adjustment, leaving very little time for intellectual and academic matters.

Several studies have reported on student needs at the time of entry into college. For example, Kramer and Washburn (1983) reported that students consistently ranked academic and career planning needs as most important both before and after orientation. Four out of five of the top ranked needs were

academic related. In another study, Kramer and Hardy (1985) noted that trained student assistants were especially effective in meeting the orientation needs of entering college students. Benjamin (1989) conducted a qualitative study of 37 freshmen attending a summer orientation program and reported that academic concerns, though important, were relegated to the background in comparison to personal, interpersonal, and environmental adjustment issues.

While orientation programs are typically delivered through media presentations, faculty and staff presentations, and student led group discussions, Entwistle, Odor, and Anderson (1987) reported on the development of a computer-based, "principled" adventure game to simulate the experience of higher education. Playing the game is intended to provide a realistic role preview for prospective higher education students in the United Kingdom. The program is viewed as a simple expert system providing a form of intelligent tutoring on how students might react to different college experiences, depending upon their personality. This work by Entwistle et al. (1987) is important because entering students' beliefs, attitudes, and knowledge are considered to be an important component of learning about college roles, and the intervention is delivered directly to prospective students via computer simulation. Reports of early trials of the system will be available in the Fall, 1990 (N. Entwistle, personal communication, April 10, 1990).

It is apparent that the information given to students during the recruitment and admissions process, together with the activities conducted in orientation for admitted students, leave much to be desired with respect to the "demand side" of general education. Much of the information presented does not fully address specific educational and career planning needs of students, and the time allocated and the methods chosen for presentation of academic matters is not sufficient. Carefully thought out, individualized presentations on college goals in relation to student goals are not the norm.

Academic Advising

Perhaps the most pivotal function, besides teaching, in undergraduate education is academic advising. This is especially true with respect to general education, because advising is the medium through which the college's educational goals and the student's educational goals are negotiated. But there is evidence that academic advising is a weak point in undergraduate education. Johnston, Shaman, and Zemsky (1988) have pointed out that "Academic advising is scandalously poor in higher education" (p. 69). They further noted that this can be especially true for technical, career-oriented students, such as engineering majors with respect to the selection of courses in the humanities and social sciences curriculum. Katchadourian and Boli (1985) noted that given the complex curricular choices and student educational planning needs, undergraduates need personalized advice to guide them through college. But they found that students were less

than satisfied with their general advisors, and this dissatisfaction increased each year. "In fact, general advising receives lower ratings than any other aspect of the undergraduate program" (Katchadourian & Boli, 1985, p. 246).

There is also considerable controversy in the literature regarding the role of faculty, professional staff, or student paraprofessionals in the advising process. Other issues include training for advising; the goals of advising; the relationship of personal, vocational, and educational domains in advising functions; the development of collaborative, comprehensive advising programs; and the evaluation of effective advising programs. Recently, issues concerning academic advising have been addressed on several fronts. First, several books have been written (Gordon, 1984; Winston, Miller, Ender, Grites, & Associates, 1984) that provide a comprehensive analysis of academic advising. Second, a professional organization, the National Academic Advising Association (NACADA), has assumed a national leadership role. Services provided by NACADA include a consultant bureau that provides low cost consultation to institutions who wish to improve academic advising, as well as in-service training opportunities for individuals who have administrative responsibility for academic advising. Third, a National Clearinghouse for Academic Advising has been established at Ohio State University.

A review of the literature reveals a number of studies on student perceptions and needs for advising. Hornbuckle, Mahoney, and Borgard (1979) found that student perceptions of advising were less differentiated than faculty. Students focused on the social skills of the advisors, while faculty perceptions were more complex and incorporated specific technical task functions. Fielstein (1989) reported that students preferred prescriptive over developmental advising activities, suggesting that there are limits to the degree of personal involvement in advising that are desirable. Vowell and Karst (1988) reported that freshmen and undeclared students' levels of perceived satisfaction with an intrusive advising program were very high. However, McKinney, and Hartwig (1981) found that the longer students had been at a college the more negative their feelings about academic advising. Finally, Andrews, Andrews, Long, and Henton (1987) found that students' advising needs included both information and personal support.

One aspect of advising research is the extent to which student and faculty perceptions of needs and functions seem to differ. Kramer, Arrington, and Chynoweth (1985) found that faculty perceived that they provided much more beneficial advisement than students felt they received. Students also perceived a significant discrepancy between what advising should have been and was. Students were confused about how faculty advising should be conducted, and although they expressed a desire to interact with the faculty, few reported such experiences. Significantly, students reported problems linking

academic planning or preparation with related career opportunities and felt that assistance in this area was not available from advisors. Elsewhere, Stickle (1982) compared student and faculty perceptions of advising and found that faculty ratings of their effectiveness were consistently higher than students. And in another study, Burke (1981) identified 15 functions commonly included in advising and asked faculty and students to prioritize and rate the effectiveness of each function. He found that students overall rated advising functions as being more important than faculty did, and they also rated the functions lower with respect to effectiveness. There were also notable discrepancies between faculty and students in the relative importance of specific functions. For example, students wanted more help from advisors in course registration, financial aid information, career and vocational planning, and obtaining part-time work related to career/educational goals.

These studies of advising appear to identify several issues important to our analysis of the "demand side" of general education. First, faculty do not appear to be generally effective as advisors, unless special efforts are made to train them and provide resources to support this role. Indeed, there is evidence that student peer advisors perform well in the advising role. Faculty also overestimate their advising effectiveness. Second, students have important career needs related to educational program planning that are not being met through advising programs. Distinctions made by the college administration between academic and career advising and decision-making are not understood by students. And, third, the concept of general education seems to be missing from the advising literature. In the scores of advising studies reviewed, no direct reference to general education was found.

Course Selection

Before moving to a discussion of career planning/advising, it is important to mention some findings on how students select their classes. This matter has come under scrutiny in numerous transcript studies (DeLoughry, 1989; Johnston, Shaman & Zemsky, 1988; Postsecondary Educational Planning Commission, 1989) in which the class selections made by individual students were analyzed. With some dismay, researchers have found no apparent coherence or logic in the selection of classes by students in many different degree programs or colleges. Poor advising and apparently capricious student course selection conspire to undermine the purposes of general education. However, few studies of the actual student decision-making processes regarding class selections have been undertaken.

Members of the national advisory group cited earlier (See Appendix A) identified numerous variables thought to be important in student course selection in relation to general education. These included the following:

* Course titles
* Time of course offering
* Extent to which the course also satisfies degree/major requirements
* Peer recommendations
* Concurrent enrollment with a friend
* Reputation of the instructor
* Allocation of seats in the course
* Student perception of the rigor or credibility of the course
* Student perception of the campus ethos regarding general education
* Spirit of adventure/risk taking regarding a new course
* Relevance of the course to future life/career goals
* Student perception of parent views of general education
* Student learning style

Moffatt (1989) observed that students' course decisions were actually based on intricate calculations and tradeoffs of necessity, interest, convenience, availability, and difficulty. A student might first look at major requirements, then check the minor or mini, then interests, and then what might compliment the major or enhance vocational pursuits. Next, one might examine preferred hours and days, including transportation, and schedule balance, not wanting to have any one semester get too demanding or boring. Finally, soliciting peer opinions about the instructor (not the subject) was important to verify presentation style and grading practices. Importantly, "academically serious" students had to be careful not to take too many "gut" courses (guaranteed A or B) because it might jeopardize later graduate school admission. In all of this, Moffatt observed, advisors were irrelevant because they knew little about the nitty-gritty of the curriculum--student peers were a much more reliable source of information.

Elsewhere, Kerin, Harvey, and Crandall (1975) examined course selection in a nonrequirement program and found that (1) personal interest in the area, (2) course content, (3) compatibility with the major field, and (4) instructor were most influential. Major information sources were friends, catalog descriptions, and faculty. Johnston, Shaman, and Zemsky (1988) observed that general course-taking patterns of engineering students in the humanities and the social sciences might be termed "episodic." Martin (1989) examined student characteristics and different kinds, sources, and delivery systems of course choice information. Martin found relationships between personality type and educational aspiration and course choice information. The results also indicated that students assigned importance to connections between liberal arts courses and career preparation.

There is evidence, then, that students operating in a laissez-faire environment select courses on the basis of a complex array of factors, only a few of which relate to general

education. Most students assemble their programs without benefit of a long range educational or career plan that is based on consideration of carefully developed goals. Situational and circumstantial factors, combined with concern about grades, become an important part of the course selection process.

Career Planning

It has become evident in this review of the "demand side" of general education that career preparation is paramount in student thinking about college. It is equally evident that many educators and policy makers are distressed by this fact, viewing "vocationalism" as a plague threatening the future of general education. But is it? Katchadourian and Boli (1985) suggest that the alarm over rising careerism needs to be placed in perspective. While students are more career-oriented now than a decade ago, the magnitude of this tendency and its significance may well have been exaggerated in the professional literature and the popular press. They conclude that a strong emphasis on liberal education is crucial to a successful college experience and need not entail a neglect of career concerns.

We believe that the issue is not so much ideological as it is semantic. Indeed, modern notions of the concept of "career" are closely related to the concept of general education. At this point it would appear to be appropriate to define some terms which will be used in the remainder of this paper.

In the late 1950s, a psychologist at Columbia University, Teachers College, Donald Super, began to distinguish between the concepts of career, career development and planning, vocation, occupation, job, work, and leisure (Super, 1976). Since that time, the disciplines of vocational psychology, occupational sociology, and labor market economics, together with the professional areas of career development and vocational guidance have increasingly come to agree upon definitions which are crucial to the present literature review.

Three terms are especially important to define here. They are career development, career, and work. The definitions are interrelated (Sears, 1982).

"Career development--the total constellation of psychological, sociological, educational, physical, economic, and chance factors that combine to shape the career of any given individual over the life span" (Sears, 1982, p. 139).

"Career--the totality of work one does in his/her lifetime" (Sears, 1982, p. 139).

"Work--conscious effort, other than that having as its primary purpose either coping or relaxation, aimed at producing benefits for oneself and/or oneself and others" (Sears, 1982, p. 142).

The key concept here is "work," because it can be either paid or unpaid (it includes leisure), is related to achievement, purposefulness, and is beneficial to someone. "Career," then, encompasses this concept of work. Further, Super (1976) offered the concept of life/career and defined it in terms of multiple life roles, including worker, student, parent, citizen, leisureite, child, homemaker, and annuitant. These roles, extending throughout one's lifetime, are a way of conceptualizing a person's career. A career is the mosaic of life roles, only one of which is the occupational or worker role. Career development further encompasses the concepts of work and career by addressing the evolution of those constructs overtime.

It is important for educators concerned about general education to understand these career-related concepts, because since the 1970s many schools have incorporated them into comprehensive career education and career guidance programs from kindergarten through high school. It is no wonder, then, that high school seniors view career preparation as an important goal for attending college. And rather than viewing career preparation as something narrow or specialized, students may in fact visualize much of the breadth inherent in general education in their articulation of career goals. It is regrettable, however, that those concerned about general education and those concerned about career development have not bridged the gaps in their rhetoric and together explored new meanings that would enhance the level of knowledge and understanding in this area. Such work seems essential in order to move ahead in our exploration of the "demand side" of general education.

While gaps exist in the level of discourse concerning career preparation and general education, there is more synergy present on many college campuses at the point of career services program delivery. Johnston (1986), for example, observed that "it is usually on the career development office, however, that the most responsibility falls for assisting students in their search for connections between their liberal learning and possible careers. Many current professionals in career development are thoughtful and creative advocates of liberal education" (p. 206-207). Liberal arts colleges, community colleges, and other postsecondary institutions have developed model career preparation programs which embodied a strong commitment to general education. Reardon (1981) cited comprehensive model programs developed at the University of Alabama, University of Maine, Alma College, Arapahoe Community College, LaGuardia Community College, University of Delaware, Northern Virginia Community College, William James College, and Doane College in a review of career education at the college level. And, Johnson and Figler (1984) provided a chapter on themes in career development in postsecondary institutions in a recent, comprehensive book on the subject (Gysbers and Associates, 1984).

Boyer (1987) noted that one of the disturbing findings in his study of the state of general education was the gap between

the college and the larger world. Hoyt (1978), former director of the U. S. Office of Career Education, also called attention to this condition and others in his analysis of the paradoxes for career education in higher education. Johnston (1986) noted that in numerous reports (Brown, 1983; Cox, 1982; Useem, 1989), business leaders have increasingly recognized the importance of a broad or liberal education in sustained managerial productivity. For example, Daly (undated) urged an academic-economic convergence in order to assure America's competitiveness and economic future in an era of international competition, technological change, and movement from an industrial to service oriented economy.

In a recent review of the literature on career development, Herr and Cramer (1988) listed over 50 different techniques to facilitate career development. With respect to outcomes, Oliver and Spokane (1988) concluded that career interventions are generally effective.

An important new development in the career field pertains to the rapidly increasing use of computer-assisted programs in career guidance and counseling, especially at the secondary and postsecondary levels (Harris-Bowlsbey, 1984; Sampson, 1983, 1984; Sampson, Shahnasarian, & Reardon, 1987). The computer has proven itself effective as a tool for providing career information, administering, scoring, and interpreting assessment instruments, and/or teaching decision-making and job-hunting skills. Lenz (1990) provides a complete review of the effects of computer-based career guidance systems, and provides new information on the impact of these systems on students differing in personality characteristics and career decidedness.

Thoughtful observers, such as Useem (1989) and Johnston (1986), appear to have bridged the gap between general education and career development. They carefully and painstakingly document how liberal learning contributes to successful careers in business and other occupational areas. As such, they offer more complex conceptual schemes, or metacognitions, that transcend the ideological traps inherent in simpler, dichotomous ways of thinking about a college education.

In summary, it appears ironic that career preparation, which weighs so heavily in student's minds upon entering college, has received so little attention by those educational leaders concerned about general education. Indeed, career preparation seems to be a major factor in an improved understanding of the "demand side" of general education. This review has revealed that elements are already in place, both within the fields of economics and career development, to bridge the "apparent" gap between liberal education and career preparation. But how to do it? Faculty advising would appear to be a desirable vehicle for such an undertaking, but it is one of the weakest components in higher education and perhaps not a likely source for such a massive undertaking.

General Education Learner Outcomes

The literature on general education is filled with reports of "outcomes," or analyses of changes in students awarded a bachelors' degree. Outcomes measures have included student developmental characteristics, cognitive structures or ways of thinking, values and political beliefs, hierarchies of skills and varieties of behaviors, and attitudes towards self and others. Other outcome studies have focused on graduation rates and employment characteristics. While this literature does focus on student perceptions and reports of the college experience, it is more pertinent to the review of the "supply side" of general education rather than the "demand side."

An important example of this area of research is the recent book by Pace (1990). Data were obtained from 25,427 undergraduates at 74 colleges and universities during 1983-1986 by means of the College Student Experiences Questionnaire (Pace, 1990). Among numerous conclusions, Pace noted that selective liberal arts colleges are uniquely powerful environments for student learning and development, and that except for those schools, there are relatively few differences in student activities and outcomes that can be attributed to the type of institution attended. Pace (1990) reported that the quality of effort invested in various college activities and the progress claimed toward various goals, including those related to general education, was relatively similar for each gender and ethnic group included in the survey. However, he also noted that engineering students reported the lowest gains in the general education area.

A different example of outcome research has been reported by Gamson and Associates (1984). Using a case study approach, they conducted extensive interviews with students and faculty to assess the impact and outcome of "liberating education."

Perhaps the most extensive study of the outcomes of general education is the College Outcome Measures Project (COMP) of the American College Testing Program (Forrest & Steele, 1982). Steele (1988) reported that almost 500 colleges and universities have used tests and services of the COMP to assess the outcomes of general education programs. While a variety of indicators of program effectiveness are suggested, COMP features direct measures of increases in student skills in general education. Recently, ACT (1990) reported the availability of CAAP, Collegiate Assessment of Academic Proficiency, which measures general education skills in the areas of reading, writing, mathematics, science reasoning, and critical thinking.

Academic Profile II (Educational Testing Service, 1988), jointly sponsored by the College Board and ETS, is a college assessment service designed to measure student outcomes in general education. The Academic Profile measures academic skills

(reading, writing, critical thinking, and using mathematical data) in the context of three major discipline groups (humanities, social sciences, and natural sciences).

However, as Stark, Shaw, and Lowther (1989) observed earlier, outcome studies have not generally been connected to goals, even though the actual items used in entering student surveys and outcome studies are often identical. Researchers focusing on the "demand side" of general education have not connected students' entering goals with the outcomes of the college experience. Stark and her colleagues at the National Center for Research to Improve Postsecondary Teaching and Learning (NCRIPTAL) have reported initial success in development of a Student Goals Exploration Inventory which will assess students' goals for specific types of introductory college courses and relate them to college goals, course motivation, course effort, and course achievement (J. Stark, personal communication, February 8, 1990). Few longitudinal studies of changes in student goals have been undertaken that are reported in the literature. Stark et al. (1989) describe such research as "value added," in which differences in scores from two measures taken at various times are calculated. The authors note that this technique is susceptible to errors in interpretation or difficulties in attributing score changes to educational processes. A more complex procedure involves examination of change scores in relation to student entry characteristics or statistical regression studies.

Finally, this review of student outcomes of general education brings us back to "supply side" issues. How can general education programs be developed and implemented to achieve the desired outcomes. And, most importantly, how can "demand side" issues be addressed so that students will fully understand and appreciate how their educational goals are to be achieved through general education. Steele (1989) observed that a critical factor in the success of outcome studies is the degree to which effort has been directed to teaching students the value of a general education; otherwise, students will not willingly participate in the assessment of the program. The relationship between student educational goals and outcomes of general education would appear to be a promising avenue for effectively integrating the supply and demand sides of general education.

Conclusions

So what can we conclude from this literature review of the "demand side" of general education. What have we learned? What knowledge have we gained? The following paragraphs summarize our conclusions.

Most of the literature on general education is on the supply side--our judgment is that less than ten percent focuses on demand side issues. This imbalance needs to be corrected, because improvements in general education programs are ultimately determined by changes in student's understandings and attitudes toward general education. We need to know more about what students bring to general education from high school, the home, the community, and the workplace. In this regard, several educators noted that successful general education programs have fully incorporated demand side information into the programs, but this is not reported in the literature.

The concept of goals appears to be important and useful in connecting supply side and demand side issues in general education. The college's goals for the general education program and liberal education can be connected with the student's goals for attending college or enrolling in a particular class. Clarification of goals can be undertaken in college descriptive literature, orientation, academic advising and career planning services.

Students are attending college in order to achieve career and vocational goals--this is clearly a priority for both students and their parents. But they also endorse goals related to broader educational concerns, e.g., becoming well rounded, develop talents and abilities to the fullest, become a better educated person. Parents place a higher priority on some of these broader goals than the students. It is apparent that students want both career preparation and general education, and may not see the two as mutually exclusive. Colleges need to help students and their parents develop new, more complex understandings of how general education can contribute to life/career satisfactions.

This review suggests that the delivery system for general education, including recruitment and admissions, orientation, teaching, course selection, academic advising and career planning services, are not fully meeting "demand side" needs for general education. These higher education functions appear to need some revitalization in order that student understandings of and attitudes toward general education might be enhanced. Given that some of these functions are administratively located in student affairs, there appears to be a need to strengthen the relationship between student personnel functions and general education.

Finally, there appears to be little effort to communicate directly to students an understanding of the relationship between general education and career preparation or preparation for other adult life roles. General education is delivered through the curriculum, meaning that faculty must incorporate their understandings of general education into their teaching or advising. There is evidence that many faculty may be unable or unwilling to do this, which suggests that some mechanism for approaching students directly may be desirable.

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Appendix A.

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Appendix C.

Students' Understanding of General Education: A Bibliography Research Methodology

Initially, a card catalog and computer database search (including ERIC and PsychLit) were completed. The following search terms were used:

General Education
Orientation
Career Planning
Academic Advising
Attitudes
Perceptions
College Students
Supply
Recruitment
Admissions
Preenrollment
Outcome Studies
Student Development
Curriculum (Cocurriculum/Cross Curriculum)
Cognitive Processes
Transcripts

Cross searches were then conducted (General Education & Orientation, Transcripts & College Students, etc.)

The above searches produced relevant authors and journals for further investigation. Other names were suggested and the same procedure was followed (card catalog and computer base searches):

Astin, Beckman, Boyer, Entwistle, Ferris, Gaff, Gamson, Gardner, Hill, Johnston, Kuh, Kuh, O'Neil, Pace, Useem, etc.

Hand searches were conducted through the following journals and searched for relevant authors and subjects (1979 to present for available journals):

Journal of College Student Personnel
Journal of Educational Research
Journal of Experiential Education
Journal of Experimental Education
Journal of General Education
Journal of Higher Education
New Directions for Higher Education
New Directions for Institutional Research
New Education
Research in Higher Education

END

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ERIC

Date Filmed

March 21,1991